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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,631	12/26/2001	Bobby That Dao Ton	P16212US1	4468

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EXAMINER

SONI, DEEPAK H

ART UNIT	PAPER NUMBER
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2668

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/025,631	Applicant(s) TON ET AL.	
	Examiner Deepak Soni	Art Unit 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>none</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that forms the basis for the rejections under this section made in this office action:

A person shall be entitled to a patent unless-

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **1,3,5-13,20,21 and 26** are rejected under 35 U.S.C. 102(e) as being anticipated by Jappinen (U.S. 2003/0012133 A1).

Regarding **Claim 1**, "detecting a failure or shutdown of one of the unit; detecting at least one control unit (GTP-C/s) that controlled data sessions supported by the failed or shutdown GTP-U" Jappinen anticipates detecting a failure in an ATM-PVC connection in the interface unit and internal control system which is able to detect whether the interface units are operating properly or not as spoken of paragraph 32 "deleting on at least one GTP-C/s the PDP Context related to the data sessions supported by the failed or shutdown GTP-U." Jappinen anticipates in case of a failure of ATM-PVC connection, the PDP context of the failed ATM-PVC may be moved (rerouted) to another AMT-PVC as spoken of paragraph 30 and as shown in figure 3 and 4.

Regarding **Claim 3 and 9**, "the step of detecting, the GTP-C/m removing all its internal connections related to the failed or shutdown GTP-U." is anticipated by Jappinen in 3G-SGSN releases the failed PDP context by sending a release_PDP_context message to the mobile stations MS in accordance with the GPRS specifications as spoken of in paragraph 30 and 32.

Regarding **Claim 5 and 11**, "sending a Delete PDP Context request message from the GTP-C/m to each one of the at least one GTP-C/s, the request message instructing each one of the at least one GTP-C/s to delete the PDP Contexts related to the failed or shutdown GTP-U." is anticipated by Jappinen in 3G-SGSN releases the failed PDP context by sending a release_PDP_context message to the mobile stations MS in accordance with the GPRS specifications as spoken of in paragraph 30.

Regarding **Claim 6 and 12**, "sending a Delete PDP Context request message from each one of the at least one GTP-C/s to a Service GRPS support node associated with the GGSN for providing the data session for mobile terminals, the request message instructing the GPRS to delete one or more PDP Contexts related to the failed or shutdown GTP-U." is anticipated by Jappinen in 3G-SGSN releases the failed PDP context by sending a release_PDP_context message to the mobile stations MS in accordance with the GPRS specifications as spoken of in paragraph 30.

Regarding **Claim 7,13, and 26**, "sending a Route Update request from the GTP-C/m to a Routing Engine (RE) for requesting a route update of routes related to

lost data sessions supported by the failed or shutdown GTP-U.” is anticipated by Jappinen in case of a failure in the ATM-PVC connection, the PDP context of the failed ATM-PVC may be moved (rerouted) to another ATM-PVC; as spoken of in paragraph 30.

Regarding **Claim 8 and 10**, “a plurality of data sessions processing units (GTP-Us) for supporting data sessions for mobile terminals;” Jappinen anticipates plurality of processing units as shown in Figure 3 and as spoken of on page 2, paragraph 27 “plurality of data session control units (GTP-C/s) for controlling the data sessions;” Jappinen anticipates plurality of controlling unit as shown in figure 3 and as spoken of on page 2, paragraph 27 “plurality of data session a master control unit (GTP-C/m) of the GGSN detecting a failure or shutdown of one of the GTP-Us;” Jappinen anticipates detecting failure as spoken of on page 3, paragraph 32 “the GTP-C/m detects at least one GTP-C/s that controlled data sessions supported by the failed or shutdown GTP-U, and requests deletions of the PDP Context related to the data sessions supported by the failed or shutdown GTP-U the at least one GTP-C/s.” Jappinen anticipates by releasing the failed PDP context by sending a release_PDP_context message as spoken of on page 3, paragraph 30.

Regarding **Claim 20**, “sending a Route Update request from the GTP-C/m to a Routing Engine (RE) for requesting a route update of routes related to lost data sessions supported by the failed or shutdown GTP-U.” is anticipated by Jappinen, in case of a failure in the ATM-PVC connection, the PDP context of the

failed ATM-PVC may be moved (rerouted) to another ATM-PVC as spoken of in paragraph 30. The motivation would be to load balance the connections over the RNCs.

Regarding **Claim 21**, "a plurality of data sessions processing units (GTP-C/s) for supporting one or more data sessions for mobile terminals;" Jappinen anticipates plurality of processing units as shown in Figure 3 and as spoken of on page 2, paragraph 27 "a plurality of data session control units (GTP-C/s) for controlling the one or more data sessions;" Jappinen anticipates plurality of controlling unit as shown in figure 3 and as spoken of on page 2, paragraph 27 "a master control unit (GTP-C/m) of the GGSN detecting a failure or a shutdown of one of the GTP-Us;" Jappinen anticipates detecting failure as spoken of on page 3, paragraph 32 "when the GPT-C/m detects the failure or the shutdown of one of the GTP-Us, it activates a spare GTP-U of the GGSN and instructs rebuilding the one or more data sessions on the spare GTP-U." is anticipated by Jappinen, the MS sending a PDP context activation message to the 3G-SGSN as spoken of on page 3, paragraph 35.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **2,15,16,18,19,22,24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyuboglu et al (U.S. 2005/0213555) in view of Jappinen (U.S. 2003/0012133 A1).

Regarding **Claim 2 and 15**, "the step of detecting a failure or a shutdown of one of the GTP-U's is performed partially by a master control unit (GTP-C/m) of the GGSN." disclosed in Eyuboglu, paragraph 75 (the AT's detect that their the sessions controlled by the failed RNC exists). Eyuboglu also discloses in paragraph 78 a master resource control agent performing load balancing. It would have been obvious to one skilled in the art at the time of the invention to use the detection and control agent of Eyuboglu. The motivation would be to detect failure and determining the resources necessary for re-connection (see Eyuboglu, paragraph 75 and 78).

Regarding **Claim 16 and 22**, "receiving in the GTP-C/m a Failure Detection message indicative of the failure or shutdown of the GTP-U." is disclosed in Eyuboglu et al, paragraph 75 (the AT's detect that their the sessions controlled by the failed RNC exists). The unit being a GTP-U in a GGSN is missing from Eyuboglu, however Jappinen discloses in figure 3, 3G-SGSN System with plurality of GTP units located in the RNC. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of the GTP units in an RNC.

Regarding **Claim 18**, “ step iii) comprises the steps of: transmitting a failed GTP-U rebuild request from the GTP-C/m to each data session control unit (GTP-C/s) of the GGSN that controlled the one or more data sessions; responsive to the GTP-U rebuild request, sending from each GTP-C/s to the spare GTP-U, information related to the PDP Context of the one or more data sessions, the information being used by the spare GTP-U to rebuild the one or more data sessions previously supported by the failed GTP-U.” is disclosed in Eyuboglu (Paragraph 84 and 85), when RNC fails and AT initiates a new session, RNC resource control agent assigns a new serving RNC to each session, provides the session information to the new serving RNC. Eyuboglu fails to teach GTP-U in GGSN, however Jappinen discloses in Figure 3, 3G-SGSN System with plurality of GTP units locates in RNCs. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of GTP unit in the RNC.

Regarding **Claim 19 and 25**, “the information is sent in a plurality of spare GTP-U Active Session messages, each one of the plurality of messages comprising one PDP context of one data sessions of the one or more data sessions.” is disclosed in Eyuboglu (Paragraph 84 and 85), when RNC fails and AT initiates a new session, RNC resource control agent assigns a new serving RNC to each session, provides the session information to the new serving RNC. Eyuboglu fails to teach GTP-U in GGSN, however Jappinen discloses in Figure 3, 3G-SGSN

System with plurality of GTP units locates in RNCs. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of GTP unit in the RNC and one or more sessions.

Regarding **Claim 24**, " rebuilding one or more data session on the spare GTP-U, the GTP-C/m transmits a failed GTP-U rebuild request to each GTP-C/s of the GGSN that controlled the one or more data sessions, and responsive to the GTP-U rebuild request, each GTP-C/s send to the spare GTP-U information related to the Packet Data Protocol (PDP) Context of the one or more data sessions, the information being used by the spare GTP-U to rebuild the one or more data sessions previously supported by the failed GTP-U." is disclosed in Eyuboglu (Paragraph 84 and 85), when RNC fails and AT initiates a new session, RNC resource control agent assigns a new serving RNC to each session, provides the session information to the new serving RNC. Eyuboglu fails to teach GTP-U in GGSN, however Jappinen discloses in Figure 3, 3G-SGSN System with plurality of GTP units locates in RNCs. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of GTP unit in the RNC.

5. **Claim 4, 14, 17 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Budhraj et al (U.S. 6,487,591) and in view of Eyuboglu et al (U.S. 2005/0213555) and in further view of Jappinen (U.S. 2003/0012133 A1).
- Regarding **Claim 4**, "detecting if the GGSN comprises a spare, non-utilized, GTP-U unit, if the GGSN does not comprise a spare, non-utilized, GTP-U unit, Performing steps ii) and iii)." is missing from Eyuboglu. However, Budhraj discloses in column 1, lines 24-32, a standby telecommunications module being switched to the IP address of the main module in the event of a failure. It would have been obvious to one skilled in the art at the time of the invention to use the method of Budhraj in the system of Eyuboglu and Jappinen. Eyuboglu discloses in paragraph 75 (the AT's detect that their the sessions controlled by the failed RNC exists, and close them to negotiate new sessions). The unit being a GTP-U in a GGSN is missing from Eyuboglu, however Jappinen discloses in figure 3, 3G-SGSN System with plurality of GTP units located in the RNC. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of the GTP units in an RNC.
- Regarding **Claim 14**, "step of: i) detecting a failure or a shutdown of the GTP-U of the GGSN;" Jappinen anticipates detecting a failure in an ATM-PVC connection in the interface unit "ii) activating a spare GTP-U of the GGSN;" is missing from Jappinen. However, Budhraj discloses in column 1, lines 24-32, a standby telecommunications module being switched to the IP address of the

main module in the event of a failure. It would have been obvious to one skilled in the art at the time of the invention to use the method of Budhraj in the system of Jappinen. "iii) rebuilding the plurality of data sessions on the spare GTP-U." is disclosed in Eyuboglu (Paragraph 84 and 85), when RNC fails and AT initiates a new session, RNC resource control agent assigns a new serving RNC to each session, provides the session information to the new serving RNC. Eyuboglu fails to teach GTP-U in GGSN, however Jappinen discloses in Figure 3, 3G-SGSN System with plurality of GTP units locates in RNCs. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of GTP unit in the RNC.

Regarding **Claim 17**, "detecting if the GGSN comprises a spare, non-utilized, GTP-U unit; and if the GGSN comprises a spare, non-utilized, GTP-U unit, performing step ii) and iii)." is missing from Eyuboglu. However, Budhraj discloses in column 1, lines 24-32, a standby telecommunications module being switched to the IP address of the main module in the event of a failure. It would have been obvious to one skilled in the art at the time of the invention to use the method of Budhraj in the system of Eyuboglu and Jappinen. " and iii) rebuilding the plurality of data sessions on the spare GTP-U." is disclosed in Eyuboglu (Paragraph 84 and 85), when RNC fails and AT initiates a new session, RNC resource control agent assigns a new serving RNC to each session, provides the session information to the new serving RNC. Eyuboglu fails to teach GTP-U in

GGSN, however Jappinen discloses in Figure 3, 3G-SGSN System with plurality of GTP units locates in RNCs. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of GTP unit in the RNC.

Regarding **Claim 23**, "the GTP-C/s detects if the GGSN comprises a spare, non-utilized, GTP-U unit, and if so, activates the spare GTP-U of the GGSN" Budhraj discloses in column 1, lines 24-32, a standby telecommunications module being switched to the IP address of the main module in the event of a failure. It would have been obvious to one skilled in the art at the time of the invention to use the method of Budhraj in the system of Eyuboglu and Jappinen. "and instructs rebuilding the one or more data sessions on the spare GTP-U." is disclosed in Eyuboglu (Paragraph 84 and 85), when RNC fails and AT initiates a new session, RNC resource control agent assigns a new serving RNC to each session, provides the session information to the new serving RNC. Eyuboglu fails to teach GTP-U in GGSN, however Jappinen discloses in Figure 3, 3G-SGSN System with plurality of GTP units locates in RNCs. It would have been obvious to one skilled in the art at the time of the invention to use the method of Eyuboglu in the system of Jappinen. The motivation would be to deal with the failure of GTP unit in the RNC.

Art Unit: 2666

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Soni whose telephone number is 571-272-2816. The examiner can normally be reached on 9:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Deepak Soni
Examiner
Art Unit 2668

DS



DANG TON
PATENT EXAMINER